

In the Specification:

Please replace the paragraph at page 15, lines 19 to 26, with a replacement paragraph amended as follows:

For a source powder, a W powder having a particle size distribution of 0.5-16 μ m, a Cu powder, and BaO powders having mean particle diameters of 1.1 μ m and 3.0 μ m were used. These powders were blended and mixed with an attritor for 5 hours. The mixed powder obtained was molded into a molded body, which was brought into contact with a material made by molding a pure Cu powder, then heated in an atmosphere of hydrogen at 1200°C for sintering, and infiltrated with Cu at the same time to produce Samples 1-3 made of respective W-Cu alloys having a final composition of ~~W-30% by weight of Cu-0.77% by weight of~~ 30% by weight of W, 0.77% by weight of Cu, and BaO as described in Table 1.

Please replace the paragraph at page 15, line 27 to page 16, line 10, with a replacement paragraph amended as follows:

Furthermore, Samples 4 and 5 were produced under the same manufacturing condition as Samples 1-3 above except that BaO powders having mean particle diameters of 0.6 μ m and 4.0 μ m were used and that the powders were mixed for 15 hours to be dispersed more uniformly to decrease the interparticle spacing. For the W-Cu alloy's final composition, Sample 4 had a composition of ~~W-31% by weight~~

~~of Cu-2.4% by weight of 31% by weight of W, 2.4% by weight of Cu, and BaO, whose powder had a mean particle diameter of 0.6 μ m, and Sample 5 had a composition of W-32% by weight of Cu-4.15% by weight of 32% by weight of W, 4.15% by weight of Cu, and BaO, whose powder had a mean particle diameter of 4.0 μ m. Furthermore, Sample 6 made of a W-Cu alloy was produced under the same condition as Samples 1-3 above except that an Ni powder was further blended with the W powder, the Cu powder, and a BaO powder having a mean particle diameter of 0.9 μ m. Sample 6 had a final alloy composition of W-30% by weight of Cu-0.77% by weight of BaO-1.2% by weight of 30% by weight of W, 0.77% by weight of Cu, 1.2% by weight of BaO, and Ni.~~

Please replace the paragraph at page 16, lines 11 to 15, with a replacement paragraph amended as follows:

Furthermore, as a comparative example, Sample 7 made of a W-Cu alloy was produced under the same condition as Samples 1-3 above except that a BaO powder having a mean particle diameter of 4.4 μ m was used. Sample 7 had the final alloy composition of ~~W-30% by weight of Cu-0.77% by weight of~~ 30% by weight of W, 0.77% by weight of Cu, and BaO, which was the same as Samples 1-3.

Please replace the paragraph at page 17, lines 7 to 13, with a replacement paragraph amended as follows:

As can be seen from the results shown in Table 1, a smaller mean particle diameter and/or a smaller mean interparticle spacing of the BaO particles contained in the W-Cu alloy provide a better electrical discharge machining property, and particularly, better electrode's wear resistance. On the contrary, as shown, Sample 7 as a comparative example, whose BaO particles had a mean particle diameter of more than $3\mu\text{m}$, has a poor electrical discharge machining property, and particularly, the ~~electrode's~~ electrode's wear resistance is significantly reduced.

Please replace the paragraph at page 17, line 15 to page 18, line 5, with a replacement paragraph amended as follows:

The same W powder and Cu powder as Example 1, and Nd_2O_3 powders or CeO_2 powders having mean particle diameters of $0.6\mu\text{m}$, $1.1\mu\text{m}$ and $4.4\mu\text{m}$ were used. These powders were blended, and the blended powders were mixed with an attritor for 5 hours or 15 hours. As in Example 1, Samples 8-10 were produced with the Nd_2O_3 powders, and Samples 11-13 were produced with the CeO_2 powders. For the W-Cu alloy's final composition, Sample 8 had a composition of ~~W-30% by weight of Cu-0.7% by weight of 30% by weight of W, 0.7% by weight of Cu, and~~ Nd_2O_3 , Sample 9 had a composition of ~~W-30% by weight of Cu-2.1% by weight of 30% by weight of W, 2.1%~~

by weight of Cu, and Nd₂O₃, Sample 10 had a composition of
W-30% by weight of Cu-0.7% by weight of 30% by weight of W,
0.7% by weight of Cu, and Nd₂O₃, Sample 11 had a composition
of W-30% by weight of Cu-0.67% by weight of 30% by weight
of W, 0.67% by weight of Cu, and CeO₂, Sample 12 had a
composition of W-30% by weight of Cu-2.0% by weight of 30%
by weight of W, 2.0% by weight of Cu, and CeO₂, and Sample
13 had a composition of W-30% by weight of Cu-0.7% by
weight of 30% by weight of W, 0.7% by weight of Cu, and
CeO₂.

Please replace the paragraph at page 18, lines 16 to 21, with a replacement paragraph amended as follows:

As can be seen from the results shown in Table 2, in each case where an oxide contained in the W-Cu alloy is Nd₂O₃ or CeO₂, a smaller mean particle diameter and/or a smaller mean interparticle spacing provide a better electrical discharge machining property. On the contrary, in Samples 10 and 13 serving as comparative examples whose oxide particles had mean particle diameters of more than 3 μ m, the ~~electorde's~~ electrode's wear resistance is significantly reduced in particular as shown.

Please replace the paragraph at page 19, lines 2 to 13, with a replacement paragraph amended as follows:

With the same method as Example 1, Samples 14-18 were produced with the final composition of ~~W-30% by weight of~~

~~Cu-0.77% by weight of 30% by weight of W, 0.77% by weight of Cu, and BaO.~~ As shown in Table 3 below, the samples had respective ratios of BaO particles having a particle diameter of not more than $3\mu\text{m}$ (not more than $1\mu\text{m}$ in Sample 17) relative to the entire alloy. Furthermore, Sample 19 was also produced by using Sr instead of Ba, with the final composition of ~~W-30% by weight of Cu-0.77% by weight of~~ 30% by weight of W and 0.77% by weight of Cu as in Samples 14-18. For each of the W-Cu alloys in the obtained samples, a ratio of BaO or SrO particles having a particle diameter of not more than $3\mu\text{m}$ (not more than $1\mu\text{m}$ in Sample 17) relative to the entire alloy (weight %), and a ratio of W particles having a particle diameter of not more than $1\mu\text{m}$ relative to all the W particles (weight %) were determined as in Sample 1. The electrode's wearout rate and the machining rate were evaluated as well. The results were shown in Table 3 below.

Please replace the paragraph at page 20, lines 1 to 16 , with a replacement paragraph amended as follows:

With the same method as Example 1, Samples 20-23 were produced with the final composition of ~~W-30% by weight of Cu-0.77% by weight of~~ 30% by weight of W, 0.77% by weight of Cu, and BaO. The samples had respective ratios of BaO particles having interparticle spacings of not more than $20\mu\text{m}$ and not more than $10\mu\text{m}$ relative to the entire alloy (weight%) as shown in Table 4 below. Sample 22 was a powder produced by the mechanical alloying method. More

particularly, Sample 22 was formed under the same processing condition as other samples except that powders were mixed with an attritor as in Example 1, then reduced to eliminate moisture and an organic solvent, and subjected to a mechanical alloying process again with the attritor in an atmosphere of Ar, at an oxide concentration of not more than 56ppm, at the agitator's rotation speed of 200rpm for 60 hours. For each of the W-Cu alloys in the obtained samples, ratios of BaO particles having interparticle spacings of not more than $20\mu\text{m}$ and not more than $10\mu\text{m}$ relative to the entire alloy (weight %), and a ratio of W particles having a particle diameter of not more than $1\mu\text{m}$ relative to all the W particles (weight %) were determined as in Example 1. The electrode's wearout rate and the machining rate were evaluated as well. The results were shown in Table 4 below.

[RESPONSE CONTINUES ON NEXT PAGE]

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